CLAIMS

1.   A   method   for   transferring   information   between   a
first network comprising first-network-stations operating
under   an   Ethernet   protocol   and   a   second   network
5   comprising   second-network-stations   operating   under   a
Fibre Channel (FC) protocol, comprising:

grouping the first-network-stations into one or more
virtual   local   area   networks   (VLANs),   each   of   the   VLANs
comprising   one   or   more   of   the   first-network-stations
10   which   transfer   a   respective   VLAN-data-frame   within   the
VLAN;

grouping   the   second-network-stations   into   one   or
more   FC   zones,   each   of   the   zones   comprising   one   or   more
of   the   second-network-stations   which   transfer   a
15   respective zone-data-frame within the zone;

coupling the first and the second networks together
using a gateway to convey data between the networks;

configuring   the   gateway   with   a   primary   association
mapping   a   primary   VLAN   chosen   from   the   VLANs   and   a
20   primary   zone   chosen   from   the   zones,   the   primary   VLAN
transferring   a   primary   VLAN-data-frame   comprising
primary-data,   comprised   in   the   data,   therein,   and   the
primary   zone   transferring   a   primary   zone-data-frame
comprising the primary-data therein; and

25   translating   in   the   gateway   between   the   primary   VLAN-
data-frame and the primary zone-data-frame, responsive to
the primary association, so as to convey the primary-data
between   the   primary   VLAN   and   the   primary   zone   via   the
gateway.

30   2.   A   method   according   to   claim   1,   wherein   configuring
the   gateway   with   the   primary   association   comprises
storing   the   primary   association   in   a   memory   comprised   in
the   gateway,   the   memory   comprising   a   content   addressable

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memory which uses the primary association to perform the translation.

3.   A method according to claim 1, wherein translating in the gateway between the primary VLAN-data-frame and the primary zone-data-frame comprises transferring the primary-data transparently between the primary VLAN and the primary zone so that the primary VLAN and the primary zone are not aware of translations performed in the gateway.

4.   A method according to claim 1, and comprising:
     configuring the gateway with a secondary association mapping a secondary VLAN chosen from the VLANs and a secondary zone chosen from the zones, the secondary VLAN transferring a secondary VLAN-data-frame comprising secondary-data, comprised in the data, therein, and the secondary zone transferring a secondary zone-data-frame comprising the secondary-data therein; and
     translating in the gateway between the secondary VLAN-data-frame and the secondary zone-data-frame, responsive to the secondary association, so as to convey the secondary-data between the secondary VLAN and the secondary zone via the gateway.

5.   A method according to claim 4, and comprising restricting the secondary VLAN and the secondary zone from accessing the primary-data.

6.   A method according to claim 4, and comprising:
     providing a joint second-network-station, chosen from the second-network-stations, implemented to be in the primary zone and the secondary zone;
     conveying the primary-data between the joint second-network-station and the primary VLAN, responsive to the primary association; and
     conveying the secondary-data between the joint

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second-network-station and the secondary VLAN, responsive to the secondary association.

7.   A method according to claim 4, and comprising:

providing a joint first-network-station, chosen from the first-network-stations, implemented to be in the primary VLAN and the secondary VLAN;

conveying the primary-data between the joint first-network-station and the primary zone, responsive to the primary association; and

conveying the secondary-data between the joint first-network-station and the secondary zone, responsive to the secondary association.

8.   A method according to claim 1, wherein configuring the gateway comprises allocating a virtual port of the gateway to the primary association, and wherein translating in the gateway comprises operating the gateway as a virtual switch so as to check a connection between the virtual port and a destination first-network-station comprised in the primary VLAN.

9.   A method according to claim 1, wherein translating in the gateway comprises translating an identity of the primary VLAN in the primary VLAN-data-frame to a virtual source identity in the primary zone-data-frame, for data conveyed from the first network to the second network.

10.   A method according to claim 1, wherein translating in the gateway comprises translating a virtual destination identity comprised in the primary zone-data-frame to an identity of the primary VLAN in the primary VLAN-data-frame, for data conveyed from the second network to the first network.

11.   Apparatus for transferring information between a first network operating under an Ethernet protocol and comprising first-network-stations grouped into one or

more VLANs, each VLAN comprising one or more of the first-network-stations which transfer a respective VLAN-data-frame within the VLAN, and a second network operating under a Fibre Channel (FC) protocol and

5   comprising one or more second-network-stations grouped into one or more zones, each zone comprising one or more of the second-network-stations which transfer a respective zone-data-frame within the zone, the apparatus comprising:

10   a gateway which is adapted to couple the first and the second network and to map a primary association between a primary VLAN chosen from the VLANs and a primary zone chosen from the zones, the primary VLAN transferring a primary VLAN-data-frame comprising

15 primary-data therein, and the primary zone transferring a primary zone-data-frame comprising the primary-data therein, and to translate between the primary VLAN-data-frame and the primary zone-data-frame, responsive to the primary association, so as to convey the primary-data

20 between the primary VLAN and the primary zone.

12. Apparatus according to claim 11, wherein the gateway comprises a content addressable memory wherein the primary association is stored and which is adapted to perform the translation.

25 13. Apparatus according to claim 11, wherein translating in the gateway between the primary VLAN-data-frame and the primary zone-data-frame comprises transferring the primary-data transparently between the primary VLAN and the primary zone so that the primary VLAN and the primary

30 zone are not aware of translations performed in the gateway.

14. Apparatus according to claim 11, wherein the gateway is adapted to map a secondary association between a

secondary VLAN chosen from the VLANs and a secondary zone chosen from the zones, the secondary VLAN transferring a secondary VLAN-data-frame comprising secondary-data therein, and the secondary zone transferring a secondary

5 zone-data-frame comprising the secondary-data therein, and to translate between the secondary VLAN-data-frame and the secondary zone-data-frame, responsive to the secondary association, so as to convey the secondary-data between the secondary VLAN and the secondary zone.

10 15. Apparatus according to claim 14, wherein the gateway is adapted to restrict the secondary VLAN and the secondary zone from accessing the primary-data.

16. Apparatus according to claim 14, and comprising a joint second-network-station, chosen from the second-

15 network-stations, implemented to be in the primary zone and the secondary zone, so that the primary-data is conveyed between the joint second-network-station and the primary VLAN responsive to the primary association, and the secondary-data is conveyed between the joint second-

20 network-station and the secondary VLAN responsive to the secondary association.

17. Apparatus according to claim 14, and comprising a joint first-network-station, chosen from the first-network-stations, implemented to be in the primary VLAN

25 and the secondary VLAN, so that the primary-data is conveyed between the joint first-network-station and the primary zone responsive to the primary association, and the secondary-data is conveyed between the joint first-network-station and the secondary zone responsive to the

30 secondary association.

18. Apparatus according to claim 11, wherein the gateway comprises a virtual port allocated to the primary association, and wherein the gateway is adapted to

operate as a virtual switch so as to check a connection between the virtual port and a destination first-network-station comprised in the primary VLAN.

19.   Apparatus according to claim 11, wherein the gateway is adapted to translate an identity of the primary VLAN in the primary VLAN-data-frame to a virtual source identity in the primary zone-data-frame, for data conveyed from the first network to the second network.

20.   Apparatus according to claim 11, wherein the gateway is adapted to translate a virtual destination identity comprised in the primary zone-data-frame to an identity of the primary VLAN in the primary VLAN-data-frame, for data conveyed from the second network to the first network.